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10/764,708

01/26/2004

Tobin J. Hall

34856.4

9179

7590

07/03/2007

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EXAMINER

PHAN, MAN U

ART UNIT

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2616

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/764,708

Applicant(s)

HALL ET AL.

Examiner

Man Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/19/04, 10/13/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

***DETAILED ACTION***

1. The application of Hall et al. for a "System and method for controlling network devices" filed 01/26/2004 has been examined. This application Claims Priority from Provisional Application 60/442,933 filed 01/27/2003. Claims 1-37 are pending in the application.

2. The applicant should use this period for response to thoroughly and very closely proof read and review the whole of the application for correct correlation between reference numerals in the textual portion of the Specification and Drawings along with any minor spelling errors, general typographical errors, accuracy, assurance of proper use for Trademarks <sup>TM</sup>, and other legal symbols @, where required, and clarity of meaning in the Specification, Drawings, and specifically the claims (i.e., provide proper antecedent basis for "the" and "said" within each claim). Minor typographical errors could render a Patent unenforceable and so the applicant is strongly encouraged to aid in this endeavor.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Provencher et al. (US#6,639,910).

With respect to claims 1-4, 7, 10, Provencher et al. (US#6,639,910) discloses in Fig. 1 a block diagram illustrated a network device 10 includes a data plane (node to node link 232) and a control plane (data bus 485). The data plane relays datagrams between a pair of receive and transmit network interface ports (ports 12, 14). The control plane runs management and control operations, such as routing and policing algorithms which provide the data plane with

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instructions on how to relay cell/packets/ frames. Further, the control plane includes an internal control device that is primarily responsible for managing the internal resources of the network device, and a separate external control device that is primarily responsible for operations relating to the interfacing of the network device with an external environment (Col. 3, lines 53 plus). It's noted that the target device interface comprises the capability of interfacing to one or more target devices, and the use of serial interfaces communications messaging schemes, such as Ethernet, RS-485, RS-232, RS-422, USB, Firewire, in target device interface are well known in the art.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 5-6, 8, 11 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Provencher et al. (US#6,639,910) in view of Gonzales et al. (US#6,834,208).

With respect to claims 5, 6, 8, 11, Provencher et al. (US#6,639,910) disclose the claimed limitations as discussed in paragraph 5 above. However, these claims differ from the claims above in that the claims require the feature wherein the data bus broadcasts a command containing a macro number associated with a desired behavioral response to the plurality of nodes. In the same field of endeavor, Gonzales et al. (US#6,834,208) discloses a distributed control system for automatically controlling the operation of a plurality of products (Fig. 1), includes the use of a special message from the network, called macro 21. Macro 21 is one of the available macro numbers defined by CEBus 80 as reserved for manufacturer specific functions. Macro 21 contains within it the house scene identifier and house scene participation status, in this case house scene membership (See Flow diagram 5; Col. 14, lines 13 plus). Gonzales further teaches in Fig. 6 a flow diagram illustrated a routine 600 showing house scene member creation using SPI 88 indications. Routine 600 starts in block 602 where a device receives an indication to capture its scene member state for a house scene. In the actual embodiment of the invention, the indication that the SPI sends is the HPnP 82 macro 20 binding macro containing the house scene channel number that is the house scene identifier. The macro 20 command indication is broadcast by a device in SPI scene programming mode after a trigger button on that device is pressed to capture a scene during a scene programming session, and the trigger device

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has acquired a house scene identifier for the scene to be captured. From block 602, the routine 600 proceeds to block 604 where a test is made to determine if the receiving device is a member based on previously received member indications, such as an adjustment on the load. If the device is a scene member of the house scene being captured, the routine 600 moves from block 604 to block 606 where the device saves the current device load state as the house scene load state scene associated with the provided house scene identifier. If the device is not a member of the house scene being captured, the routine 600 branches from block 604 to block 608 where the scene capture ends because there is no scene membership to capture on the device (Col. 14, lines 13 plus, and Col. 15 lines 35 plus).

Regarding claims 32-34, they are method claims corresponding to the apparatus claims above. Therefore, claims 32-34 are analyzed and rejected as previously discussed with respect to claims above.

One skilled in the art would have recognized the need for effectively distributing communication control and data information between nodes, and would have applied Gonzales's novel use of the control information messages using macro number command into Provencher's data plane and control plane in network devices. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Gonzales' Method and apparatus for providing distributed control of a home automation and control system into Provencher's functional separation of internal and external controls in network devices with the motivation being to provide a method and system for controlling a plurality of nodes in a network.

7. Claims 12-13, 16-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Provencher et al. (US#6,639,910) in view of Gonzales et al. (US#6,834,208).

With respect to claims 12, 13, 16-23, both Provencher et al. (US#6,639,910) and Gonzales et al. (US#6,834,208) disclose a novel system and method for controlling a plurality of nodes in a network, in according with the essential features of the claims. Provencher et al. (US#6,639,910) discloses in Fig. 1 a block diagram illustrated a network device 10 includes a data plane (node to node link 232) and a control plane (data bus 485). The data plane relays datagrams between a pair of receive and transmit network interface ports (ports 12, 14). The control plane runs management and control operations, such as routing and policing algorithms which provide the data plane with instructions on how to relay cell/packets/ frames. Further, the control plane includes an internal control device that is primarily responsible for managing the internal resources of the network device, and a separate external control device that is primarily responsible for operations relating to the interfacing of the network device with an external environment (Col. 3, lines 53 plus).

However, Provencher does not disclose expressly wherein the data bus broadcasts a command containing a macro number associated with a desired behavioral response to the plurality of nodes. In the same field of endeavor, Gonzales et al. (US#6,834,208) discloses a distributed control system for automatically controlling the operation of a plurality of products (Fig. 1), includes the use of a special message from the network, called macro 21. Macro 21 is one of the available macro numbers defined by CEBus 80 as reserved for manufacturer specific functions. Macro 21 contains within it the house scene identifier and house scene participation status, in this case house scene membership (See Flow diagram 5; Col. 14, lines 13 plus).

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Gonzales further teaches in Fig. 6 a flow diagram illustrated a routine 600 showing house scene member creation using SPI 88 indications. Routine 600 starts in block 602 where a device receives an indication to capture its scene member state for a house scene. In the actual embodiment of the invention, the indication that the SPI sends is the HPnP 82 macro 20 binding macro containing the house scene channel number that is the house scene identifier. The macro 20 command indication is broadcast by a device in SPI scene programming mode after a trigger button on that device is pressed to capture a scene during a scene programming session, and the trigger device has acquired a house scene identifier for the scene to be captured. From block 602, the routine 600 proceeds to block 604 where a test is made to determine if the receiving device is a member based on previously received member indications, such as an adjustment on the load. If the device is a scene member of the house scene being captured, the routine 600 moves from block 604 to block 606 where the device saves the current device load state as the house scene load state scene associated with the provided house scene identifier. If the device is a not a member of the house scene being captured, the routine 600 branches from block 604 to block 608 where the scene capture ends because there is no scene membership to capture on the device (Col. 14, lines 13 plus, and Col. 15lines 35 plus).

Regarding claims 24-29, 31, they are method claims corresponding to the apparatus claims above. Therefore, claims 24-29, 31 are analyzed and rejected as previously discussed with respect to claims above.

One skilled in the art would have recognized the need for effectively distributing communication control and data information between nodes, and would have applied Gonzales's novel use of the control information messages using macro number command into Provencher's



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data plane and control plane in network devices. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Gonzales' Method and apparatus for providing distributed control of a home automation and control system into Provencher's functional separation of internal and external controls in network devices with the motivation being to provide a method and system for controlling a plurality of nodes in a network.

8. Claims 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Provencher et al. (US#6,639,910) in view of Slemmer et al. (US#6,795,404).

With respect to claim 35, the references disclose a novel system and method for controlling a plurality of nodes in a network, in according with the essential features of the claims. Provencher et al. (US#6,639,910) discloses in Fig. 1 a block diagram illustrated a network device 10 includes a data plane (node to node link 232) and a control plane (data bus 485). The data plane relays datagrams between a pair of receive and transmit network interface ports (ports 12, 14). The control plane runs management and control operations, such as routing and policing algorithms which provide the data plane with instructions on how to relay cell/packets/ frames. Further, the control plane includes an internal control device that is primarily responsible for managing the internal resources of the network device, and a separate external control device that is primarily responsible for operations relating to the interfacing of the network device with an external environment (Col. 3, lines 53 plus).

However, Provencher does not disclose expressly a behavior table residing at each nodes for identifying the behavior associated with macro number. In the same field of endeavor,

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Slemmer et al. (US#6,795,404) discloses in Fig. 2 a block diagram illustrated an interactive device 200 employed to act as a single point of communication between many devices thereby limiting the communication paths to the number of devices in the environment. An aggregator embodiment may also be employed to accept communications from multiple transport types to act as a translator between devices of different transports. An aggregator embodiment may also be employed to control device interaction by employing interaction rules. The logical operations of the processor that involve implementing the interaction rules are embodied in methods. The methods specify how a particular device or group of devices communicate. One embodiment of a method involves transmitting a message to the aggregator from a first device and receiving the message at the aggregator. The aggregator references interaction rules in relation to the message from the first device to direct communications from the aggregator to one or more devices of the plurality (*behavior control*)(Col. 2, lines 2 plus and Col. 4, lines 42 plus).

Regarding claims 36-37, they are method claims corresponding to the apparatus claim above. Therefore, claims 36-37 are analyzed and rejected as previously discussed with respect to the claim above.

One skilled in the art would have recognized the need for effectively distributing communication control and data information between nodes, and would have applied Slemmer's novel use of the behavior control within a multiple device environment into Provencher's data plane and control plane in network devices. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Slemmer's device for aggregating, translating, and disseminating communications within a multiple device environment into Provencher's functional separation of internal and external controls in network

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devices with the motivation being to provide a method and system for controlling a plurality of nodes in a network.

***Allowable Subject Matter***

9. Claims 9, 14-15 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest wherein each input device is operable to broadcast a command with its macro number to other nodes in the network in response to receiving a predetermined input, and other nodes are operable to behave in a predetermined manner in response to receiving the command; wherein each node is operable to broadcast a command with its macro number to other nodes in response to receiving a predetermined input, and other nodes having the same macro number are operable to behave in a predetermined manner in response to receiving the command; wherein each node is operable to broadcast a command with its macro number to other nodes in response to receiving a predetermined input, and other nodes having the same macro number are operable to behave in a predetermined manner substantially simultaneously in response to receiving the command, as specifically recited in claims.

11. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Goldman (US#6,611,866) is cited to show management object for aggregated network device status.

The Gram et al. (US#2004/0001433) is cited to show the interactive control of network devices.

The Slemmer et al. (US#6,985,450) is cited to show the device for aggregating translating and disseminating communications within a multiple device environment.

The Hutter et al. (US#2004/0098513) is cited to show the method for the control of network devices connected via a bus system.

The Myer et al. (US#6,574,234) is cited to show the method and apparatus for controlling network devices.

The Bryans et al. (US#6,297,724) is cited to show the lighting control subsystem for use in system architecture for automated building.

The Gonzales et al. (US#2005/0055108) is cited to show the method and apparatus for providing distributed control of a home automation and control system.

The Bhagwat et al. (US#6,721,805) is cited to show the proding shared medium multiple access capability in point to point communications.

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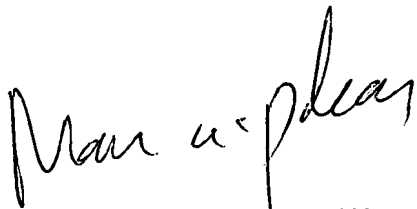
The Edens et al. (US#6,611,537) is cited to show the synchronous network for digital media streams.

The Godicke et al. (US#2002/0059485) is cited to show the controller internal bus supporting the TCP/IP protocol.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

06/27/2007

A handwritten signature in black ink, appearing to read "Man u. phan", written in a cursive style.

MAN U. PHAN  
PRIMARY EXAMINER